

## CLAIMS:

1. A method for determining the return path of a packet in a network, the network comprising a plurality of nodes and a plurality of links between the nodes, and wherein for each first node having at least one link with a second node, a link exists between the second node and the first node,  
5 the method being used when sending the packet from a source node to a destination node, via at least an intermediate node, characterized in that the method comprises the step of storing information in the intermediate node for deriving the return path.
- 10 2. A method for determining the return path of a packet in a network according to claim 1, characterized in that the method further comprises steps of storing information in each node visited by the packet for deriving the return path, when sending the packet from a source node to a destination node.
- 15 3. A method for determining the return path of a packet in a network according to claim 1, characterized in that the information stored in the intermediate node comprises an identifier of the packet and information that encodes an output port of the intermediate node to be used for returning the packet.
- 20 4. An integrated circuit, comprising a network, the network having a plurality of nodes and a plurality of links between the nodes, and wherein for each first node having at least one link with a second node, a link exists between the second node and the first node, the network being arranged to determine the return path of a packet when sending the packet from a source node to a destination node, via at least an intermediate node,  
25 characterized in that, the intermediate node is arranged to store information for deriving the return path.
5. An integrated circuit according to claim 4, characterized in that each node of the plurality of nodes is arranged to store information for deriving the return path.

6. An integrated circuit according to claim 4, characterized in that the intermediate node is arranged to store an identifier of the packet and information that encodes an output port of the intermediate node to be used for returning the packet.